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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,367	06/13/2005	Kunichika Kubota	Q88482	6022
23373	7590	02/13/2008	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			FOGARTY, CAITLIN ANNE	
ART UNIT		PAPER NUMBER		
1793				
MAIL DATE		DELIVERY MODE		
02/13/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/538,367	KUBOTA ET AL.
	<b>Examiner</b> CAITLIN FOGARTY	<b>Art Unit</b> 1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 13 June 2005.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-5 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-5 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 13 June 2005 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449)  
 Paper No(s)/Mail Date 0/13/2005, 1/24/2006

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Status of Application***

1. Claims 1 – 5 are pending and presented for this examination.

***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

3. The information disclosure statements (IDSs) were submitted on June 13, 2005 and January 24, 2006, respectively. These submissions are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner. Please refer to applicant's copy of form PTO-1449 submitted herewith.

***Specification***

4. The disclosure is objected to because of the following informalities: p. 4 line 10, p. 5 line 19, p. 6 line 3, p. 7 line 18, p. 8 lines 7 and 13, p. 9 lines 9 and 16, p. 13 lines 4 and 24, p. 14 line 9, and p. 19 line 8 contain the typographical error "cupper" which should be changed to "copper." Appropriate correction is required.

***Claim Objections***

5. Claims 1 and 5 are objected to because of the following informalities: Claims 1 and 5 contain the typographical error "cupper (Cu)" which should be changed to "copper (Cu)." Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1 – 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beguinot et al. (WO 02/083966 A1 from IDS).

In regards to the instant claim 1, claim 1 of the English translation of Beguinot et al. discloses a tool steel (eg. cold die steel) with an overlapping composition as seen in the table below.

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Element	Claim 1 (mass %)	Bequinot et al. (mass %)	Overlapping Range (mass %)
C	0.7 – 1.6	0.8 – 1.5	0.8 – 1.5
Si	0.5 – 3.0	$\leq 2$ (Si + Al)	0.5 – 2
Mn	0.1 – 3.0	0.2 – 3	0.2 – 3
P	< 0.05	---	0
S	0.01 – 0.12	$\leq 0.3$	0.01 – 0.12
Cr	7.0 – 13.0	5.0 – 14	7.0 – 13.0
Mo + (W/2)	0.5 – 1.7	1.0 – 4	1.0 – 1.7
V	< 0.7	$\leq 1$	< 0.7
Ni	0.3 – 1.5	$\leq 5$	0.3 – 1.5
Cu	0.1 – 1.0	$\leq 1$	0.1 – 1.0
Al	0.1 – 0.7	$\leq 2$ (Si + Al)	0.1 – 0.7
Nb	---	$\leq 0.1$	0
Ca	---	$\leq 0.1$	0
Se	---	$\leq 0.1$	0
Te	---	$\leq 0.1$	0
Ti + Zr/2	---	0.06 – 0.15	---
N	---	0.004 – 0.02	---
Fe + impurities	Balance	Balance	Balance

The instant claims 2 and 3 further limit the composition of the cold die steel by reciting that it must satisfy the formulas by mass %: Ni/Al=1 – 3.7, (Cr-4.2xC)=5 or less, and (Cr-6.3xC)=1.4 or more. Since the compositional ranges of the tool steel disclosed by Bequinot et al. overlap with the ranges recited in claim 1, the steel taught by Bequinot et al. would satisfy the formulas. Also, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177; 57 USPQ 117, *Taklatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those ordinary skilled in the art. *In re Austin et al.*, 149 USPQ 685, 688.

The instant claim 4 recites that the cold die steel further includes, by mass%, 0.3 or less excluding 0 of columbium (Nb). This overlaps with the range of columbium taught by Beguinot et al. of less than or equal to 0.1 mass%.

The instant claim 5 recites all the limitations of claims 1 – 4 and therefore would have been obvious to one skilled in the art in view of Beguinot et al. for the reasons given above.

Since the claimed compositional ranges of claims 1 – 5 either overlap or are within the ranges disclosed by Beguinot et al., a *prima facie* case of obviousness exists. See MPEP 2144.05. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed steel alloy composition from the steel alloy disclosed by Beguinot et al. because Beguinot et al. teaches the same utility (eg. tool steel) in the whole disclosed range. The tool steel of Beguinot et al. would inherently have the excellent characteristics of suppressing dimensional change as claimed in the instant claims 1 and 5, and could inherently be used as the claimed cold die steel. See MPEP 2112 III and IV.

### ***Conclusion***

9. No claim is allowed. All pending claims are rejected.
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CAITLIN FOGARTY whose telephone number is (571)270-3589. The examiner can normally be reached on Monday - Friday 8:00 AM - 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/  
Supervisory Patent Examiner, Art  
Unit 1742

CF